**Goal 10 Day 1 Notes**

**Simplifying Radical Expressions**

Radical Expression🡪 expression that contains a Square root

(Square root means what times itself equals a given number)

Ex.

To begin you need to recall all of your perfect squares

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Steps to simplify radicals without variables:

1. Determine if the radical is a perfect square

Ex.

2. If it is not, then divide the number by 2 and begin to divide the number under the radical by any perfect squares that are less than half the original number. Work back towards 1, until you find a perfect square that divides in evenly.

Ex. ½ of 245 is 122.5 so begin with 121

121, 100, 81, and 64 all do not work the first perfect square that divides in evenly is 49

3. Rewrite the radical as a product of the perfect square that divided in and the result of that division, then simplify.

Ex.

Ex.

Ex.

Ex.

What changes is a radical has a coefficient? Ex.

Anything that comes out of the radical is multiplied with the coefficient.

Ex.

Ex.

Ex.